|  |  |  |  |
| --- | --- | --- | --- |
| **Grade** | **12** | **Date** |  |
| **Cluster** | **Applied Engineering** | **Subject** | **Microcontrollers** |
| **Student Name** |  | **ID** |  |

1. **Fill up the blanks with suitable words given below: (5)**

Current negative one way current positive connection no connection 0.5 second 5 second

1. A resistor is a component which resists \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. A diode is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ valve.
3. In a LED , the longer lead is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. There is \_\_\_\_\_\_\_\_\_\_\_\_ across the rows in a breadboard.
5. The command PAUSE 500 lasts for \_\_\_\_\_\_\_\_\_\_\_\_\_
6. **Match the following: (5)**

|  |  |
| --- | --- |
| Vdd | Finite loop |
| DO.....LOOP | 0 to 255 |
| Vss | Infinite loop |
| FOR …… NEXT LOOP | GND = 0 Volts |
| |  |  | | --- | --- | | Byte |  | | +5 Volts |

**Answer the following questions: (10)**

1. What program code would you use to cause the BASIC Stamp to do nothing for an entire minute?
2. What are the different types of variables used by BASIC Stamp?
3. What will the command HIGH 15 do?
4. Draw the schematic symbol of LED.
5. State any two rules for choosing a variable name.

2.

1. **Refer to the figure below and answer the following questions: (10 )**



**‘{$STAMP BS2}**

**‘{$PBASIC 2.5}**

DEBUG “The LED is blinking”

DO

HIGH 14

PAUSE 500

LOW 14

PAUSE 500

LOOP

END

1. In the above program how many does the LED flash in one second? (2)
2. Modify the above program to make the LED flash ON and OFF four times in one second. (3)
3. Rewrite the program to make the LED circuit flash ON and OFF 100 times before it stops. (5)